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ABSTRACT

A study investigated whether students using a literature based reading program achieved greater spelling ability through formal spelling instruction or informal spelling instruction. Subjects were 20 first-grade students. Instruction was divided into two 4-week sections. During the first four weeks, students were exposed to vocabulary words through literature, but they did not receive formal spelling instruction on the words. The second 4-week section also involved exposure to vocabulary words through literature, and students received formal spelling instruction. Results indicated that students gained better spelling ability through formal instruction. (Contains 21 references and one table of data. Two appendixes containing study data are attached.) (Author/RS)

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Formal Spelling Instruction

Incorporated with a Literature-Based Reading Program

in a First Grade Classroom

by

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ABSTRACT

The purpose of this study was to see if students using a literature based reading program achieved greater spelling ability through formal spelling instruction or informal spelling instruction. The sample was based on twenty first grade students. The study was divided into two-four week sections. During the first four weeks, students were exposed to vocabulary words through literature, but they did not receive formal spelling instruction on the words. The second four week section also involved exposure to vocabulary words through literature, and in addition, students received formal spelling instruction. The results show that students gained better spelling ability through formal instruction.

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DEDICATION

I dedicate this paper to my parents, John and Marie Gurevitch. It is through a lifetime of love, support and encouragement that I have the desire for continued success and achievement.

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LIST OF TABLES

I. Mean, Standard Deviation, and t Test Results Between the Tests and Two Results.

The whole language philosophy of learning is becoming more and more prevalent nationwide. As this approach develops throughout school districts, students' spelling abilities are becoming a significant concern among educators and parents.

Literature-based curriculums follow the whole language approach and these have eliminated spelling instruction relying on the invented spelling approach. This approach allows students to write words as they sound. Spelling is invented; children are encouraged to listen carefully to spoken words, to segment or separate out the phonemes, and then spell, representing these phonemes with letters(Uhry and Shepard, 1993). But spelling should be taught both formally and informally according to Storie and Willems, (1988). Formal instruction should involve the use of short lists of words, such as sight words from the literature and high frequency words. According to Storie and Willems (1988), having spelling words in a list form is a more successful approach than words presented in sentences and, paragraphs. Spelling instruction should enable students to form and store more associations between letters in spelling and sounds in pronunciations and therefore become more effective word readers (Ehri and Wilce, 1987). Studies by Bradley and Bryant (1993) and Ehri and Wilce (1987), support spelling training in classrooms. Within particular whole language

classrooms, children provided with direct instruction in spelling became stronger decoders (Uhry and Shepard, 1993).

Informal spelling approaches should be connected to the entire school program. Pupils should learn to spell in many other situations besides the formal spelling lesson (Storie and Willems, 1988). In relation to the literature, word study can be focused on homophones, analogies and aspects of structural analysis.

Advocates for whole language feel invented spelling is an important component of the program. Students will spell by matching the sounds they hear with a letter name that they believe stands for that specific sound. The spelling approach is informal and it is believed students will gain spelling ability through print in stories and early writing experiences (Uhry and Shepard, 1993).

Although schools may be using a whole language approach, a combination approach using a literature-based program in conjunction with a formal spelling program may provide first grade students with a stronger foundation for early reading. Accordingly, a study was conducted to determine if students in a first grade classroom gain better knowledge of spelling through informal instruction or formal spelling instruction in such an approach.

Hypothesis

It was hypothesized that teaching spelling with a literature-based program through an informal approach does not have a significant effect on first graders' spelling ability.

Procedure

To test the hypothesis, the study was divided into two-four week sections. The first four weeks involved the reading of four trade books. The stories were presented in big book style and after two days the students were issued their own small copies. The students were exposed to new vocabulary words in the context of the story and through the use of sentence strips. Target vocabulary words were framed on the sentence strips and also pointed out while reading the story several times during the five day program involving that book. However, no formal spelling instruction of the words took place. The students were tested after there was an accumulation of ten words that the students had been exposed to from the stories for a total of forty words.

The second four week session involved the reading of four new trade books with a review of all the new vocabulary words. The students had formal instruction on the words. This formal instruction consisted of pointing out the word in context and also isolating the words in a word list. The spelling words

were reviewed on a daily basis, used in oral sentences, written ten times each for homework, and located in newspapers or magazines. In addition, there was a phonetic spelling review of the words and a spelling test on Fridays on all new vocabulary words for each story book successively.

Test scores from both the informal instruction and formal instruction were kept on record. A comparison was made of the mean results on the tests using both informal and formal instruction to see if formal instruction made a significant difference in spelling ability.

Results

As can be seen in Table 1, the sample achieved a spelling mean score of 36.62 on test one of target words administered at the conclusion of four weeks of reading with minimal instruction.

Table 1

Mean, standard deviation, and t between the tests and two results.

	M	SD	t
Test One	36.62	18.06	6.40
Test Two	77.26	22.79	

Sig. < .01

Test two results show that students improved their scores markedly with instruction, over those without instruction. There was a gain in achievement of 40.64 points. This improvement was significant below the .01 level.

Conclusions

The results of this study support the hypothesis that teaching spelling with a literature-based program through an informal approach does not have a significant effect on first graders' spelling ability when judged by the mean score of 36.62% correct.

When the students were tested on their vocabulary words during the first four week session, they were relying on their phonic skills alone to spell the word. At the time of the test the students had been exposed to the vocabulary words several times. The words were framed on the sentence strips and also pointed out to the students during teacher readings and choral readings. The students were able to recall the words as sight words but when they were asked to spell these words in a list form and to incorporate the words into their writing, they experienced difficulties and did not complete the task successfully. This informal spelling instruction was allowing students to use the invented approach, where they matched sounds they heard to a letter name, thus giving them an invented word. The advocates for whole language stress that students who are exposed to the repetition of print will develop an awareness for proper spelling. This study shows very little support for that idea. The students worked on one story for five days. During this time the story was read several times in school and assigned to

be read at home. There was plenty of exposure to the vocabulary words, however there was little transference from print awareness to proper spelling.

During the four week session in which formal spelling instruction was implemented, students began to transfer their vocabulary words from sight recognition to spelling. The words were framed as they were during the first four week session. These words were also listed on the board for the week . Each day there was a review of the words where students used the words in oral sentences, choral spelling activities, synonym, antonym and homonym activities, and they had to write the words ten times each for homework. The students enjoyed the class activities and liked to find the vocabulary words in print around the room and in magazines. The students had the opportunity to see the word in context during story readings, but also had the opportunity to see them isolated on a list. This combination of repetition through sight, repetition through writing and isolated activities increased the students' spelling abilities.

In addition to improved spelling ability, as indicated by the mean of 77.26% correct, the students were more confident in their writing ability. They made more attempts at writing sentences about the stories they read. They did not like to hear "spell it the way it sounds".

It is clear that the benefits students gained by having formal spelling instruction in conjunction with a literature-based program, a combination

approach, provides students with the foundation they need for reading and writing.

Spelling Instruction: Related Literature

In recent years many school districts have been changing their curriculums from basal reading programs to a whole language or literature-based reading programs. As part of this approach, the spelling curriculum has also been undergoing some changes. This whole language philosophy, in regard to spelling supports the invented spelling approach.

Research in the subject of spelling offers many suggestions and discussions . There are opinions and research that supports the philosophy of invented spelling, there are opinions and research that favor the traditional method . There is also evidence of support for a combination approach of both formal spelling and invented spelling.

"The interest in invented spelling begun by C. Chomsky and Read has produced a growing body of literature on spelling development and interrelatedness of writing and reading"(Clark, 1988).

Clark did a study to test the claim of proponents by comparing the progress of children encouraged to use invented spelling with those encouraged to use traditional spelling in their writing.(Clark, 1988). She used four first grade classrooms. Two teachers encouraged invented spelling while the other two encouraged traditional spelling.

The study was conducted over a five month period. Assessment materials consisted of the use of the Boder Word Recognition Inventory which was given in

October. Students had to read a list of words. Students were also tested on the ability to print letters, recite the alphabet and days of the week, and print as many words as possible(Clark, 1988). In March the students were assessed for spelling and reading achievement using the Wide Range Achievement Test, Spelling Subtest, Level 1, and a word list. This word list consisted of high frequency irregularly spelled words and lower frequency regularly spelled words.

The pretest results in October showed the invented spelling classrooms were initially better at spelling as many words as possible and the traditional classrooms were better at word recognition in flash condition(Clark, 1988).

The post test results showed that children using invented spelling develop some understanding of the spelling system and scored significantly higher in tasks requiring word analysis. There was minimal difference in regard to the scores of reading comprehension and flash word recognition(Clark, 1988).

Distefano and Hagerty express their opinion of using invented spelling with first grade students as a tool to develop language. They feel students can experiment with language while writing without worrying about their spelling (Distefano & Hagerty, 1985). Invented spelling should begin in early primary grades and students will pass through stages eventually incorporating traditional spelling mechanics into their writing(Distefano & Hagerty, 1985).

However, Distefano and Hagerty also mention methods of formal spelling at the primary level. Spelling can be pulled from students writing and also high-frequency words. Lists can be developed and presented to students in a pre test. Spelling activities such as configuration, word search puzzles, self correcting activities and finally post tests(Distefano & Hagerty, 1985).

The research of Distefano and Hagerty makes suggestions for a combination approach of invented spelling and formal spelling.

John Downing reports information on Zutell's study stating that Zutell concludes "learning to spell is not simply a matter of enough drill work and/or rote memorization"(Downing, 1986). Downing also feels "the development of spelling proficiency seems to involve both cognitive and linguistic processes and, as such, it requires the active exploring participation of learning"(Downing, 1986). In his view students will acquire knowledge and meaningful language from invented spelling.

Benjamin Bloom offers information on "Automaticity". This is defined as "the mastery of any skill whether a routine task or a highly refined talent - depends on the ability to perform it unconsciously with speed and accuracy while consciously carrying on other brain functions"(Bloom, 1986). Bloom studied this process of automaticity in many different areas ranging from Olympic swimmers to research neurologists. The study was based on outstanding individuals in various fields.

Bloom states that people achieve this state of "automaticity" by overlearning. Constant practice is necessary to develop automaticity to reach top-level performance(Bloom, 1986). An example cited would be a pianist preparing for a performance. He may practice for several months before self satisfaction is achieved. This concept is also carried over to academic subjects of reading and writing.

In reading, "the first type of learning emphasizes letters and phonemes. The second type of learning emphasizes frequently used words and phrases, while the third type of learning emphasizes greater speed and accuracy in reading connected discourse at the child's appropriate level of difficulty and interest" (Bloom,1986). Spelling can blend into this theory of "automaticity". If it is practiced often, spelling will also become an automatic process.

According to Shane Templeton, recent advances in linguistic analysis provides a sound foundation for spelling instruction(Templeton, 1986). "Students should have a formal spelling program in the first grade if they are acquiring a good sight word vocabulary and are proceeding well in reading. The words should be of high-frequency words that can be read automatically"(Templeton, 1986). Spelling lessons should extend beyond the memorization process and be incorporated into reading, writing and vocabulary development. This also lends support for a combination approach. Students begin with invented spellings to

show they are developing a knowledge of print and the sounds that letters represent.

In the Encyclopedia of Educational Research, Read and Hodges(1982) describe the implication of research on formal spelling programs. "The unfolding understanding that learning to spell is not simply a matter of memorizing words but in large measure a consequence of developing cognitive strategies for dealing with English Orthography (spelling) poses one of the most significant challenges for curriculum developers in the long heritage of this school subject"(Templeton, 1988).

Several experimental studies have shown that learning to read words improves children's ability to spell those words(Ehri & Wilce, 1987). Ehri and Wilce performed a study to see if learning to spell improves children's ability to learn to read words. This study involved kindergarten students who could make alphabet letters but could not spell words with consonant clusters to one of two groups. The experimental group was taught to segment and spell words. The control group practiced associating letters with isolated sounds, the same sounds appearing in the words taught with the students in the experimental group(Ehri & Wilce, 1987). They hypothesized, if spelling aids in the reading process, the trained subjects should learn to read more words than the control group.

The results of their study shows evidence that learning to spell makes a contribution to reading for children who are beginning to read(Ehri & Wilce, 1987). A main component of this study deals with the training that students received in the experimental group on segmentation of words. The training in how to segment words into phonemes and represent the sounds with letters is necessary. Phonetic spelling skills carry over and improve word reading skills(Ehri & Wilce, 1987). As children use letter names to create phonetic spellings of words, they are relying on memory skills to produce a letter-sound correspondence. This is similar to the reading process when students rely on memory of sight words. Ehri and Wilce also stress the importance of using high-frequency words in spelling instruction.

Information in this study does not rule out the use of invented spelling. It does suggest that the use of both invented spelling and direct instruction may be the most effective and beneficial approach(Ehri & Wilce, 1987).

Storie and Willems are in agreement with the idea of teaching spelling with a formal and informal approach. They do stress the importance of writing because it allows students the opportunity to use spelling in everyday experiences(Storie & Willems, 1988). "Daily purposeful writing helps develop a need for correct spelling as well as spelling consciousness"(Storie & Willems, 1988).

Silva and Yarborough refer back to Benjamin Bloom's article on "Automaticity", (1986). They feel if students have an automatic spelling vocabulary they can express their thoughts in writing much easier than if they did not have an automatic spelling vocabulary. A student who has difficulty with spelling will often reject the use of words in their writing if it can not be spelled automatically(Silva & Yarborough, 1990). They feel that rote learning of high-frequency words is important.

Judie Bartch's research on spelling focuses on Wilde's proposal for a new spelling curriculum. Whereas he suggests teachers should promote reading and writing with the use of literature and process writing as teaching strategy development of words(Bartch, 1992). Wilde's philosophy is that a spelling program should produce competent independent spellers. "Learning to spell is the acquisition of a complex schematic system that is developed through use. Spelling is a developmental process similar to learning to talk"(Bartch, 1992). Bartch discusses techniques used to enhance her program in the classroom. Invented spelling is used, but spelling strategies are taught through charts, dictionary and thesaurus use. It is through the use of spelling strategies, writing, exposure to literature and a rich print environment that spelling skills will grow (Bartch, 1992).

Ehri and Robbins proposed that decoding skills are used by beginning readers. This is done by translating letters into sounds and then blending the sounds. Ehri and Robbins did a study on non-decoders and decoders. Ehri's theory is that students using phonological decoding skills can store spellings of words in lexical memory. This ability to decode then transfers to analogy skills. For example, the word "beak" would be placed on the board, and students can orally select a word out of a list that rhymes with beak. This skill of analogy allows the student to analyze spellings into sound units and to blend these units to form a word (Ehri & Robbins, 1992). It is here that spelling transfers to the reading process.

"Recent research supports the idea that learning isolated word lists is not an effective way to help children learn to spell in spite of the fact that the memorization of weekly isolated word lists is a common practice in many classrooms"(Carty, 1992). Gerald Carty explains that most formal spelling programs have word lists that students are expected to master. It is believed that once these words are learned, students will use them correctly in their writing. Carty expresses that the isolation of words becomes less meaningful and is not a natural process. Spelling needs to be integrated into the entire curriculum.

A major aspect of spelling is the students ability to write. "Spelling instruction must be a part of reading experiences. By providing an environment that is rich in meaningful writing experiences, we will go a long way towards helping children

become effective language users"(Carty 1992). Gerald Carty does not believe that formal spelling should be eliminated, but there is a need to adjust teaching strategies of spelling so that it encompasses the reading and writing experiences.

Emergent literacy is currently the central focus of all educators. Ruel Allred addresses some very interesting points of view concerning the methods to promote emergent literacy. An important point Allred brings forth is the fact that teachers often become over enthusiastic about new approaches of learning (Allred, 1993). These new approaches tend to dominate classroom instruction, and past practices that previously worked get pushed aside. Teachers need to incorporate past and present practices to obtain the maximum potential of the learning process.

Allred also focuses on the need for formal spelling instruction. Teachers need to find the time for this. With the use of a formal spelling program, children are receiving instructions on techniques to develop spelling skills. Some of the new emerging programs often leave learning to spell words to chance(Allred 1993). "Systematic formal instruction is needed to augment what is learned through informal instruction"(Allred, 1993). Invented spelling is not criticized by Allred, however, he feels that if students can experience proper spelling of words it will give them the confidence to write.

Rastall provides information on a spelling system that is all phonetic spelling. He calls it Rational Spelling, and feels it will allow students to read and write freely. Traditional spelling is too complex for young children and eventually they will develop the skills needed for formal spelling(Rastall, 1993). This opinion follows the whole language philosophy.

Usha Goswami offers support for the use of phonological skills in classroom instruction. The use of these skills, will help children recognize spelling categories, therefore becoming better readers. However, it is not expected that this is the only way to teach reading. Once again a combination approach of phonological skills with reading activities will help students make the connection between spelling and reading(Goswami, 1994).

Priscilla Griffith and Mary Olsen also agree that phonological skills will help young children with their reading. Phonemic awareness helps students to use letter-sound correspondences to read and spell(Griffith & Olsen, 1992). "Phonemic awareness plays an important role in the learning skills requiring the manipulation of phonemes - specifically word recognition and spelling"(Griffith & Olsen, 1992).

Spelling instruction has been a concern for many years. There have been various studies on formal spelling instruction as well as informal spelling instruction. As whole language, literature based instruction and new philosophies

of teaching methods are presented, spelling appears to be put aside from the curriculum.

Allred best summarized it saying that teachers tend to accept new innovative ideas, but forget the old ideas that were useful in instruction. "Decades of research and experience have accumulated from which sound practice have been established"(Allred, 1993). If many of the old methods work, we need to maintain them. Accept new ideas and blend the strategies of spelling together.

There are those educators who are firm believers in staying with the traditional method of spelling. Bloom believes in "automaticity" and if students keep practicing their spelling, they will learn the words and read.

Clark and Downing emphasize the need for children to feel free from concern of correct spelling. Without this concern, students will write freely. Invented spelling is a great way to achieve this free feeling.

Based on the research, the most beneficial way to teach spelling is through an integrated approach. Spelling strategies and formal instruction should not be deleted from the curriculum.

However, although the support generally seems to be with the integration of formal spelling with whole language and literature based classrooms, research needs to be done on this combination approach. How do students perform in spelling in a whole language or literature based classroom without formal spelling

instruction, and how do they perform with formal spelling integrated into the curriculum?

We must keep in mind that as educators, our goal always remains the same. We want to promote confident and literate students. To achieve this goal, we must maximize our potential by using proven innovative teaching techniques, both old and new, so our students can maximize their potential.

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Appendices

APPENDIX A

Spelling pre-test raw scores

Subject	Test 1	Test 2	Test 3	Test 4
1	20%	0%	20%	0%
2	70%	60%	60%	40%
3	40%	30%	20%	0%
4	70%	30%	30%	10%
5	80%	70%	70%	50%
6	40%	40%	0%	10%
7	60%	40%	10%	20%
8	40%	50%	0%	30%
9	20%	20%	0%	0%
10	30%	30%	0%	10%
11	60%	50%	40%	20%
12	50%	60%	20%	10%
13	60%	40%	50%	10%
14	20%	80%	50%	50%
15	40%	70%	20%	20%
16	60%	50%	50%	40%
17	30%	30%	10%	20%
18	30%	60%	10%	0%
19	90%	60%	20%	40%
20	90%	80%	70%	70%

APPENDIX B

Spelling post test raw scores

Subject	Test 1	Test 2	Test 3	Test 4
1	20%	30%	30%	10%
2	100%	90%	80%	100%
3	50%	40%	20%	40%
4	100%	70%	60%	100%
5	90%	80%	90%	100%
6	90%	70%	70%	100%
7	60%	90%	100%	100%
8	100%	90%	100%	100%
9	90%	90%	80%	90%
10	50%	30%	10%	60%
11	100%	90%	80%	100%
12	100%	80%	80%	100%
13	70%	50%	100%	100%
14	100%	100%	100%	100%
15	100%	80%	100%	100%
16	100%	100%	50%	100%
17	80%	70%	30%	80%
18	90%	100%	80%	80%
19	100%	80%	90%	90%
20	100%	90%	100%	100%